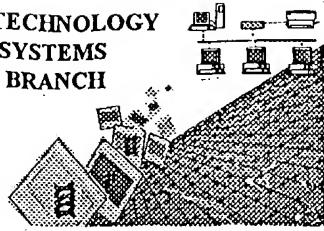


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/828,935
Source: OIPE
Date Processed by STIC: 9-9-04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221**

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

Does Not Comply
Corrected Diskette Needed

ERROR DETECTED**SUGGESTED CORRECTION****SERIAL NUMBER:** 10/828,935

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 Wrapped Nucleic
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 Invalid Line Length The rules require that a line **not exceed** 72 characters in length. This includes white spaces.

3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.

4 Non-ASCII The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. Please ensure **your subsequent submission is saved in ASCII text**.

5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. **Per Sequence Rules**, each n or Xaa **can only represent a single residue**. Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7 Skipped Sequences
(OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for **each** skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 Skipped Sequences
(NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for **each** skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 Use of <220>
 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 Misuse of n/Xaa "n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid



**Does Not Comply
Corrected Diskette Needed**

IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,935

DATE: 09/09/2004

TIME: 08:04:43

Input Set : N:\efs\10828935\UTMB1024_txt.txt
Output Set: N:\CRF4\09092004\J828935.raw

3 <110> APPLICANT: Board of Regents, The University of Texas System
4 Gorenstein, David G.
5 Luxon, Bruce A.
6 Herzog, Norbert
7 Tang, Xian B.
9 <120> TITLE OF INVENTION: BEAD BOUND COMBINATORIAL OLIGONUCLEOSIDE PHOSPHOROTHIOATE

AND

10 PHOSPHORODITHIOATE APTAMER LIBRARIES
12 <130> FILE REFERENCE: UTMB:1024
14 <140> CURRENT APPLICATION NUMBER: 10/828935
15 <141> CURRENT FILING DATE: 2004-04-21
17 <150> PRIOR APPLICATION NUMBER: 60/334,887
18 <151> PRIOR FILING DATE: 2001-11-15
20 <150> PRIOR APPLICATION NUMBER: 10/272,509
21 <151> PRIOR FILING DATE: 2002-10-16
23 <160> NUMBER OF SEQ ID NOS: 70
25 <170> SOFTWARE: PatentIn version 3.3
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 15
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Synthetic oligonucleotide.
36 <220> FEATURE:
37 <221> NAME/KEY: misc_feature
38 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic oligonucleotide
40 <400> SEQUENCE: 1
41 ggatccggtg gtctg 15
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 15
46 <212> TYPE: DNA
47 <213> ORGANISM: Artificial
49 <220> FEATURE:
50 <223> OTHER INFORMATION: Synthetic oligonucleotide.
53 <220> FEATURE:
54 <221> NAME/KEY: misc_feature
55 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic oligonucleotide
57 <400> SEQUENCE: 2
58 cctactcgcg aattc 15
61 <210> SEQ ID NO: 3
62 <211> LENGTH: 23
63 <212> TYPE: DNA
64 <213> ORGANISM: artificial
66 <220> FEATURE:

See Item # 11 on Error Summary Sheet.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,935

DATE: 09/09/2004

TIME: 08:04:43

Input Set : N:\efs\10828935\UTMB1024_txt.txt
 Output Set: N:\CRF4\09092004\J828935.raw

67 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate

or

68 dithiophosphate

71 <220> FEATURE:

72 <221> NAME/KEY: modified_base

73 <222> LOCATION: (1)..(23)

74 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate

or

75 dithiophosphate at positions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19,
 76 21, 23.

78 <400> SEQUENCE: 3

79 cagtggagg gacttccca ggc

23

82 <210> SEQ ID NO: 4

83 <211> LENGTH: 23

84 <212> TYPE: DNA

85 <213> ORGANISM: Artificial

87 <220> FEATURE:

88 <223> OTHER INFORMATION: Synthetic oligonucleotide.

91 <220> FEATURE:

92 <221> NAME/KEY: modified_base

93 <222> LOCATION: (1)..(23)

94 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate

or

95 dithiophosphate at positions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19,
 96 21, 23.

98 <400> SEQUENCE: 4

99 cctgcacatc tcaggatgac ttt

23

102 <210> SEQ ID NO: 5

103 <211> LENGTH: 22

104 <212> TYPE: DNA

105 <213> ORGANISM: Artificial

107 <220> FEATURE:

108 <223> OTHER INFORMATION: Synthetic oligonucleotide.

111 <220> FEATURE:

112 <221> NAME/KEY: modified_base

113 <222> LOCATION: (1)..(22)

114 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate

or

115 dithiophosphate at positions 4, 8, 9, 16, 19.

117 <400> SEQUENCE: 5

118 atgtagccag cttagtctgtc ag

22

121 <210> SEQ ID NO: 6

122 <211> LENGTH: 22

123 <212> TYPE: DNA

124 <213> ORGANISM: Artificial

126 <220> FEATURE:

127 <223> OTHER INFORMATION: Synthetic oligonucleotide.

130 <220> FEATURE:

131 <221> NAME/KEY: modified_base

132 <222> LOCATION: (1)..(22)

133 <223> OTHER INFORMATION: wherein at least one nucleotide is an achiral thiophosphate

or

134 dithiophosphate at positions 5, 9, 10, 16, 19.

136 <400> SEQUENCE: 6

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,935

DATE: 09/09/2004

TIME: 08:04:43

Input Set : N:\efs\10828935\UTMB1024_txt.txt
 Output Set: N:\CRF4\09092004\J828935.raw

```

137 cggccaggta aggttggacc cc 22
140 <210> SEQ ID NO: 7
141 <211> LENGTH: 50
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial
145 <220> FEATURE:
146 <223> OTHER INFORMATION: Synthetic oligonucleotide.
149 <220> FEATURE:
150 <221> NAME/KEY: misc_feature
151 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
153 <400> SEQUENCE: 7
154 atgcctactc gcgaaattccc aggagattcc acggatccgg tggctgttc 50
157 <210> SEQ ID NO: 8
158 <211> LENGTH: 52
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Synthetic oligonucleotide.
166 <220> FEATURE:
167 <221> NAME/KEY: misc_feature
168 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
170 <400> SEQUENCE: 8
171 cttactcgcg aattcagttt aggggacttt cccaggcgga tccgggtggc tg 52
174 <210> SEQ ID NO: 9
175 <211> LENGTH: 18
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Synthetic oligonucleotide.
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <223> OTHER INFORMATION: Description of Artificial Sequence: consensus sequence
187 <400> SEQUENCE: 9
188 atgcctactc gcgaaattc 18
191 <210> SEQ ID NO: 10
192 <211> LENGTH: 18
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial
196 <220> FEATURE:
197 <223> OTHER INFORMATION: Synthetic oligonucleotide.
200 <220> FEATURE:
201 <221> NAME/KEY: misc_feature
202 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
204 <400> SEQUENCE: 10
205 gaacagacca ccggatcc 18
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 22
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,935

DATE: 09/09/2004

TIME: 08:04:43

Input Set : N:\efs\10828935\UTMB1024_txt.txt
Output Set: N:\CRF4\09092004\J828935.raw

213 <220> FEATURE:
214 <223> OTHER INFORMATION: Synthetic oligonucleotide.
217 <220> FEATURE:
218 <221> NAME/KEY: misc_feature
219 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
221 <400> SEQUENCE: 11
222 ctgtgagtcg actgatgacg gt 22
225 <210> SEQ ID NO: 12
226 <211> LENGTH: 22
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Synthetic oligonucleotide.
234 <220> FEATURE:
235 <221> NAME/KEY: misc_feature
236 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
238 <400> SEQUENCE: 12
239 agttgagtcg aaggaccat tt 22
242 <210> SEQ ID NO: 13
243 <211> LENGTH: 22
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Synthetic oligonucleotide.
251 <220> FEATURE:
252 <221> NAME/KEY: misc_feature
253 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
255 <400> SEQUENCE: 13
256 cgtcaagtct cagttccat tt 22
259 <210> SEQ ID NO: 14
260 <211> LENGTH: 22
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Synthetic oligonucleotide.
268 <220> FEATURE:
269 <221> NAME/KEY: misc_feature
270 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
oligonucleotide
272 <400> SEQUENCE: 14
273 agtcaagtct aagttccacg gt 22
276 <210> SEQ ID NO: 15
277 <211> LENGTH: 22
278 <212> TYPE: DNA
279 <213> ORGANISM: Artificial
281 <220> FEATURE:
282 <223> OTHER INFORMATION: Synthetic oligonucleotide.
285 <220> FEATURE:
286 <221> NAME/KEY: modified_base
287 <222> LOCATION: (1)..(22)

RAW SEQUENCE LISTING DATE: 09/09/2004
PATENT APPLICATION: US/10/828,935 TIME: 08:04:43

Input Set : N:\efs\10828935\UTMB1024_txt.txt
Output Set: N:\CRF4\09092004\J828935.raw

INFORMATION: wherein at least one nucleotide is an achiral thiophosphate ophosphate at positions 2, 8, 14, 16, 22.
NCE: 15
actgatgacg gt 22
D NO: 16
H: 22
DNA
ISM: Artificial
RE:
INFORMATION: Synthetic oligonucleotide.
RE:
KEY: modified_base
ION: (1)..(22)
INFORMATION: wherein at least one nucleotide is an achiral thiophosphate ophosphate at positions 8, 12, 14, 20, 22.
NCE: 16
aaggaccat tt 22
D NO: 17
H: 22
DNA
ISM: Artificial
RE:
INFORMATION: Synthetic oligonucleotide.
RE:
KEY: modified_base
ION: (1)..(22)
INFORMATION: wherein at least one nucleotide is an achiral thiophosphate ophosphate at positions 4, 8, 10, 12, 20, 22.
NCE: 17
cagttcccat tt 22
D NO: 18
H: 22
DNA
ISM: Artificial
RE:
INFORMATION: Synthetic oligonucleotide.
RE:
KEY: modified_base
ION: (1)..(22)
INFORMATION: wherein at least one nucleotide is an achiral thiophosphate ophosphate at positions 4, 8, 12, 18, 22.
NCE: 18
aagttccacg gt 22
D NO: 19
H: 22
DNA
ISM: Artificial
RE:
INFORMATION: Artificial oligonucleotide.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/828,935

DATE: 09/09/2004
TIME: 08:04:44

Input Set : N:\efs\10828935\UTMB1024_txt.txt
Output Set: N:\CRF4\09092004\J828935.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/828,935

DATE: 09/09/2004

TIME: 08:04:44

Input Set : N:\efs\10828935\UTMB1024_txt.txt
Output Set: N:\CRF4\09092004\J828935.raw